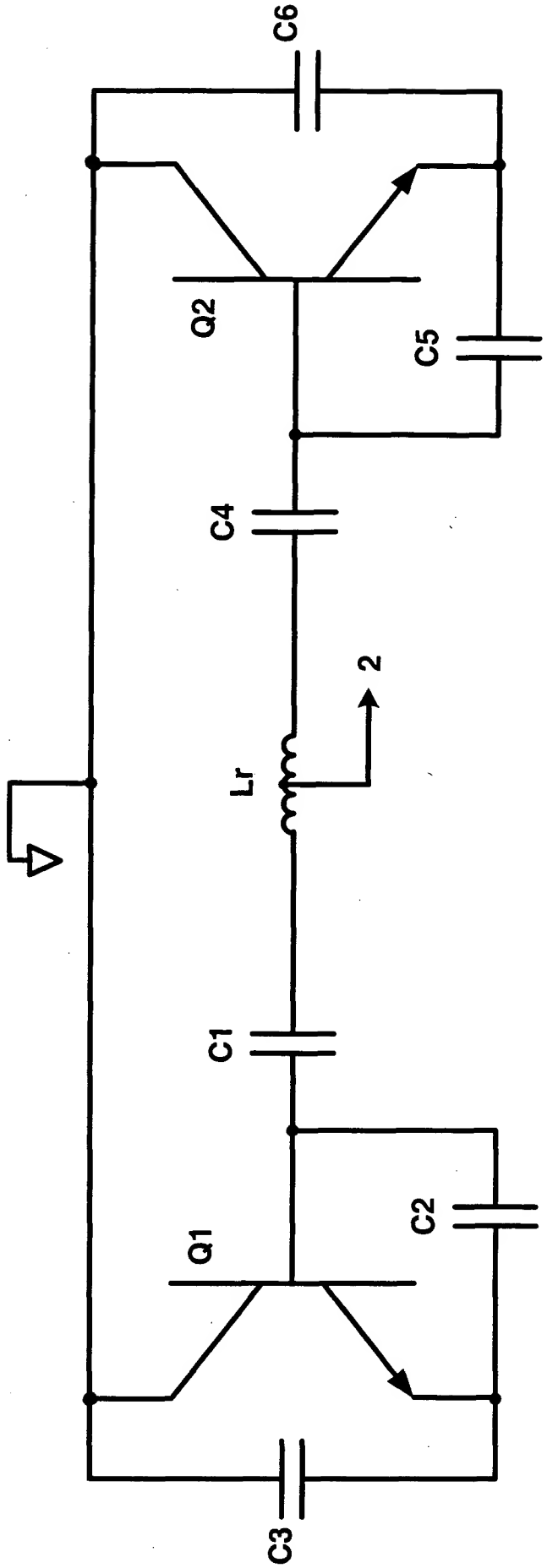

FIG. 1 (Prior Art)

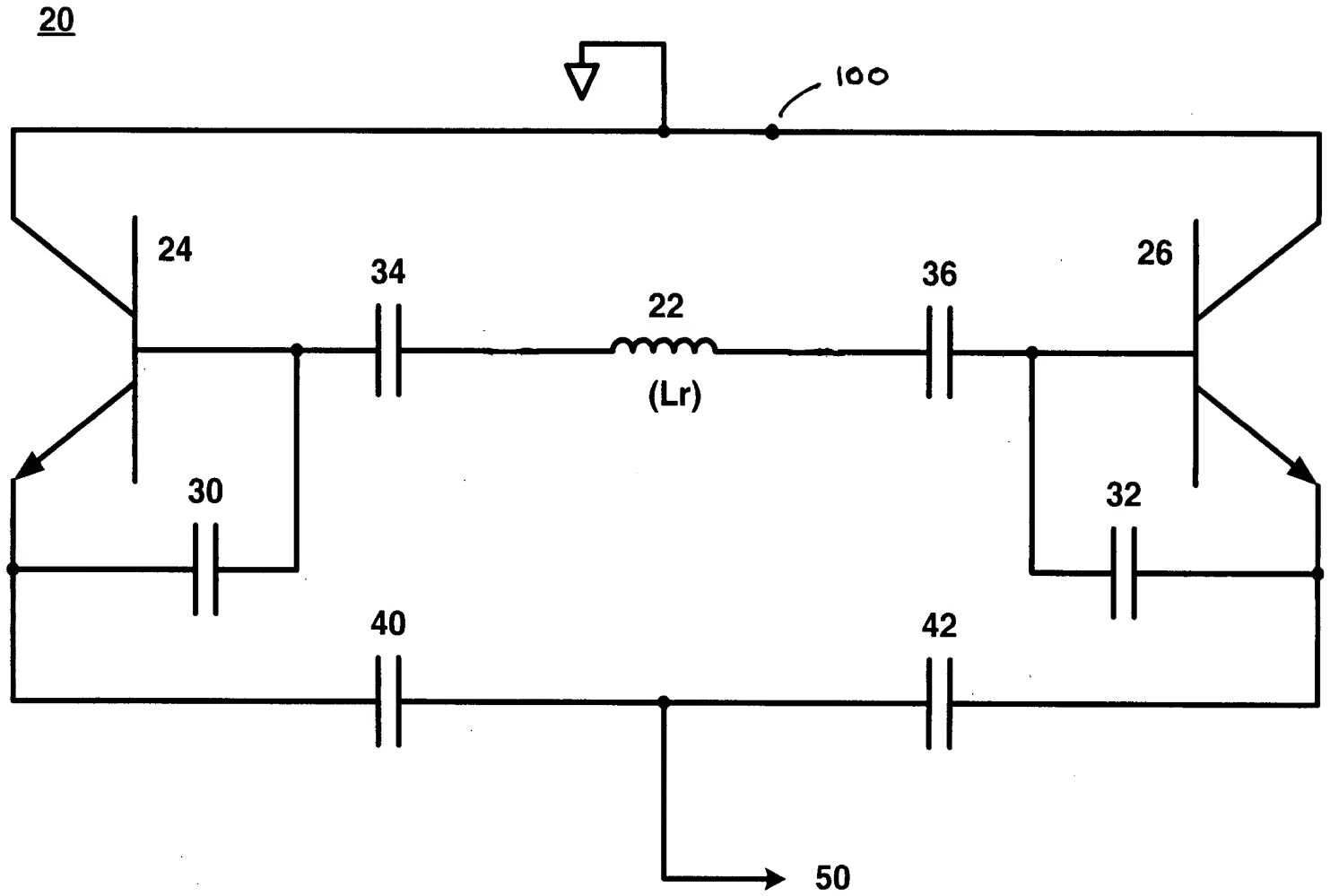

FIG. 2

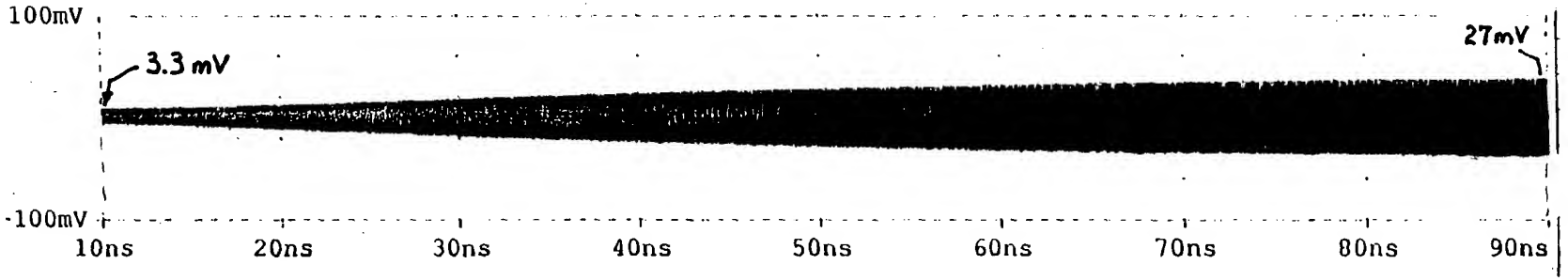
100mV
3.3 mV
27mV
-100mV
10ns
20ns
30ns
40ns
50ns
60ns
70ns
80ns
90ns
8.8 GHz
14 GHz

FIG. 3A

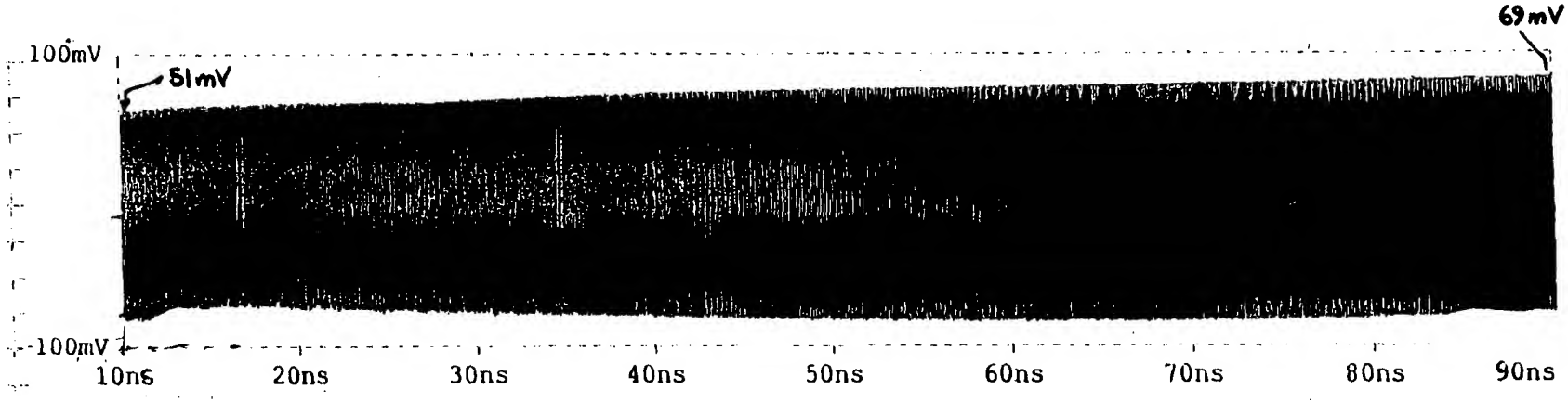
69mV
100mV
51mV
-100mV
10ns
20ns
30ns
40ns
50ns
60ns
70ns
80ns
90ns
8.8 GHz
14 GHz

FIG. 3B

20A

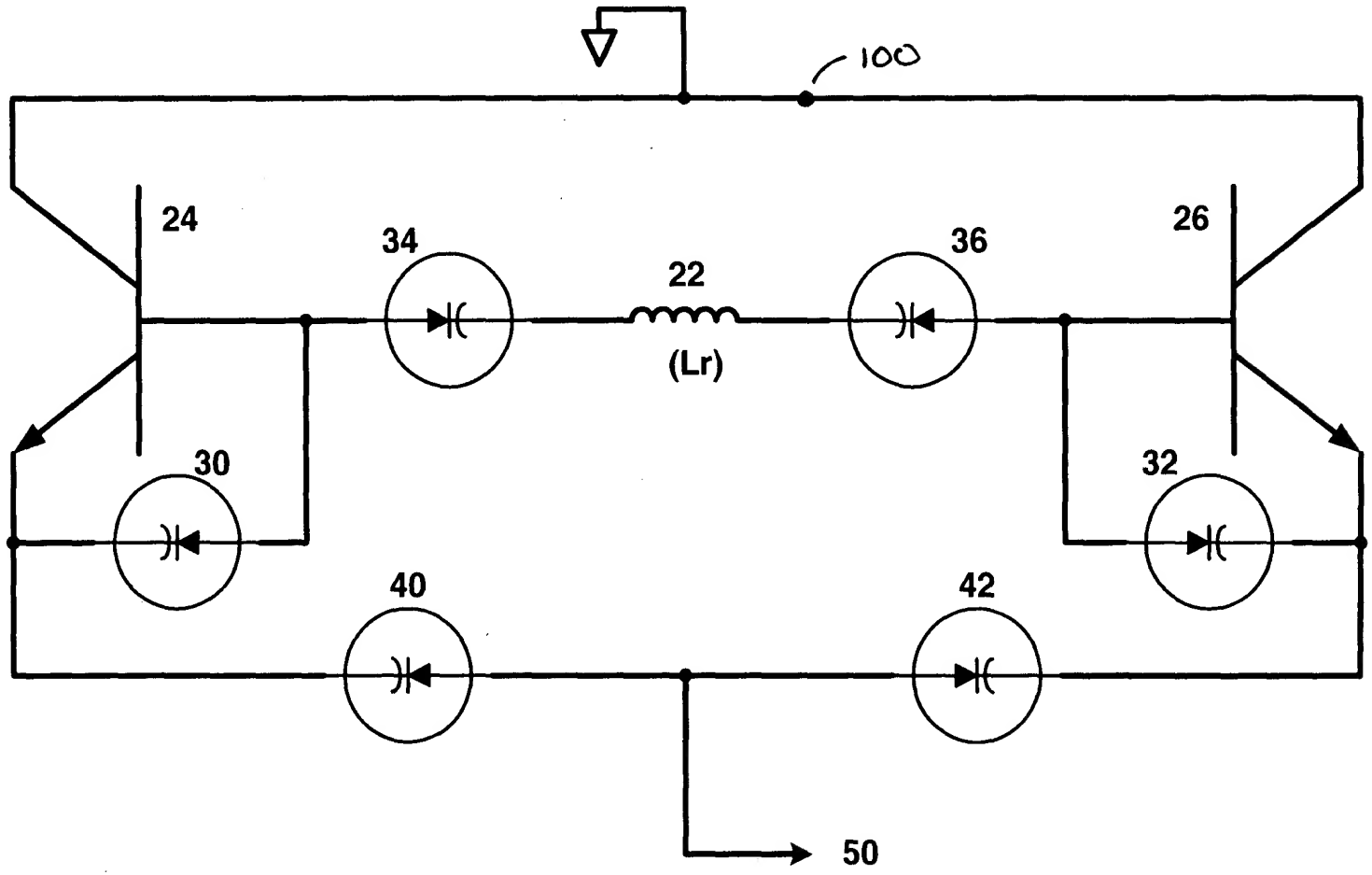

FIG. 4

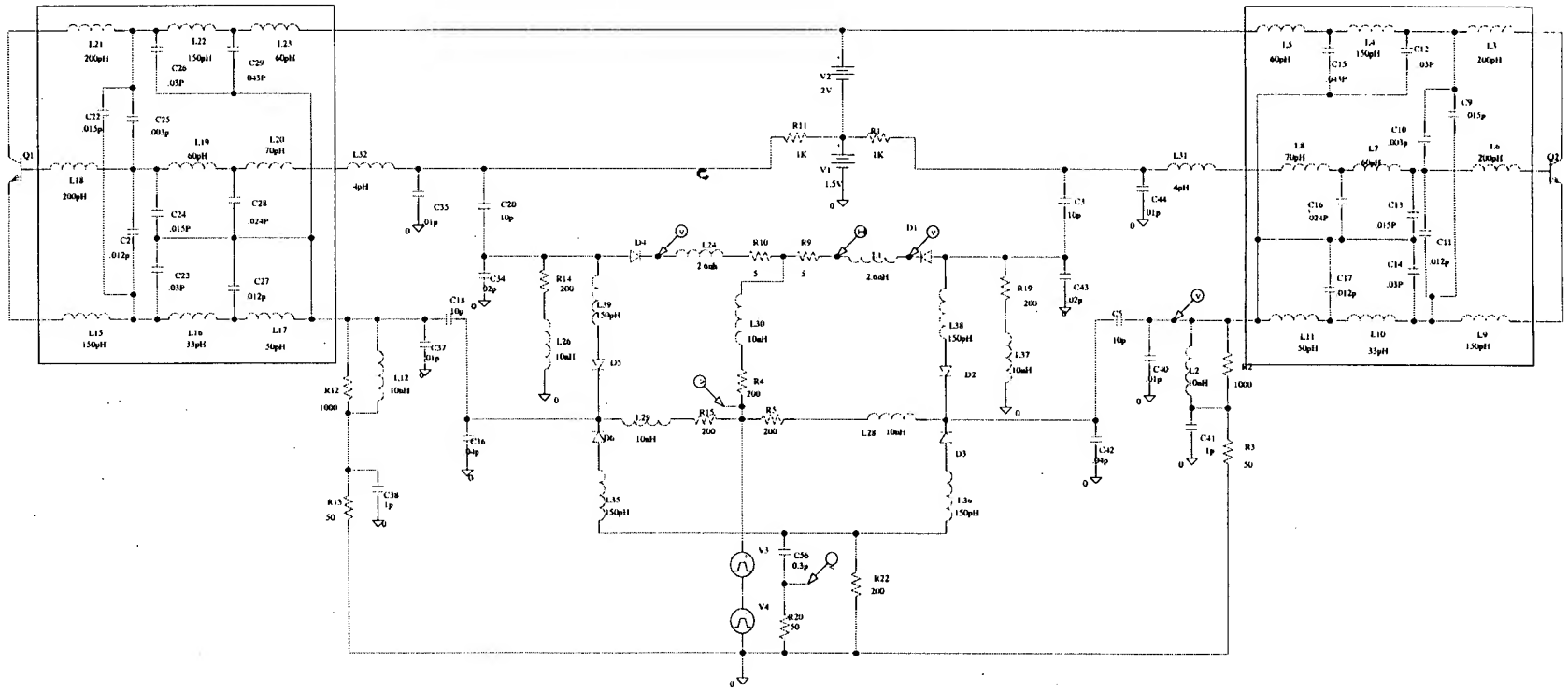
Q1
Q2
V1
1.5V
V2
2V
V3
V4
L21
200pH
L22
150pH
L23
60pH
L18
200pH
L19
60pH
L20
70pH
L15
150pH
L16
33pH
L17
50pH
L32
4pH
L31
4pH
L5
60pH
L4
150pH
L3
200pH
L8
70pH
L7
60pH
L6
200pH
L11
50pH
L10
33pH
L9
150pH
L24
2.0nH
L1
2.0nH
L39
150pH
L30
10nH
L38
150pH
L37
10nH
L12
10nH
L26
10nH
L29
10nH
L28
10nH
L35
150pH
L36
150pH
L2
10nH
R11
1K
R1
1K
R10
5
R9
5
R14
200
R19
200
R4
200
R15
200
R5
200
R12
1000
R13
50
R2
1000
R3
50
R22
200
R20
50
C35
.01p
C20
10p
C34
.02p
C18
10p
C37
.01p
C36
.04p
C3
10p
C44
.01p
C43
.02p
C5
10p
C40
.01p
C42
.04p
C41
1p
C56
0.3p
C22
.015p
C25
.003p
C24
.015P
C28
.024P
C21
.012p
C23
.03P
C27
.012p
C26
.05P
C29
.045P
C15
.045P
C12
.03P
C9
.015p
C10
.003p
C16
.024P
C13
.015P
C14
.03P
C17
.012p
C11
.012p

FIG. 5

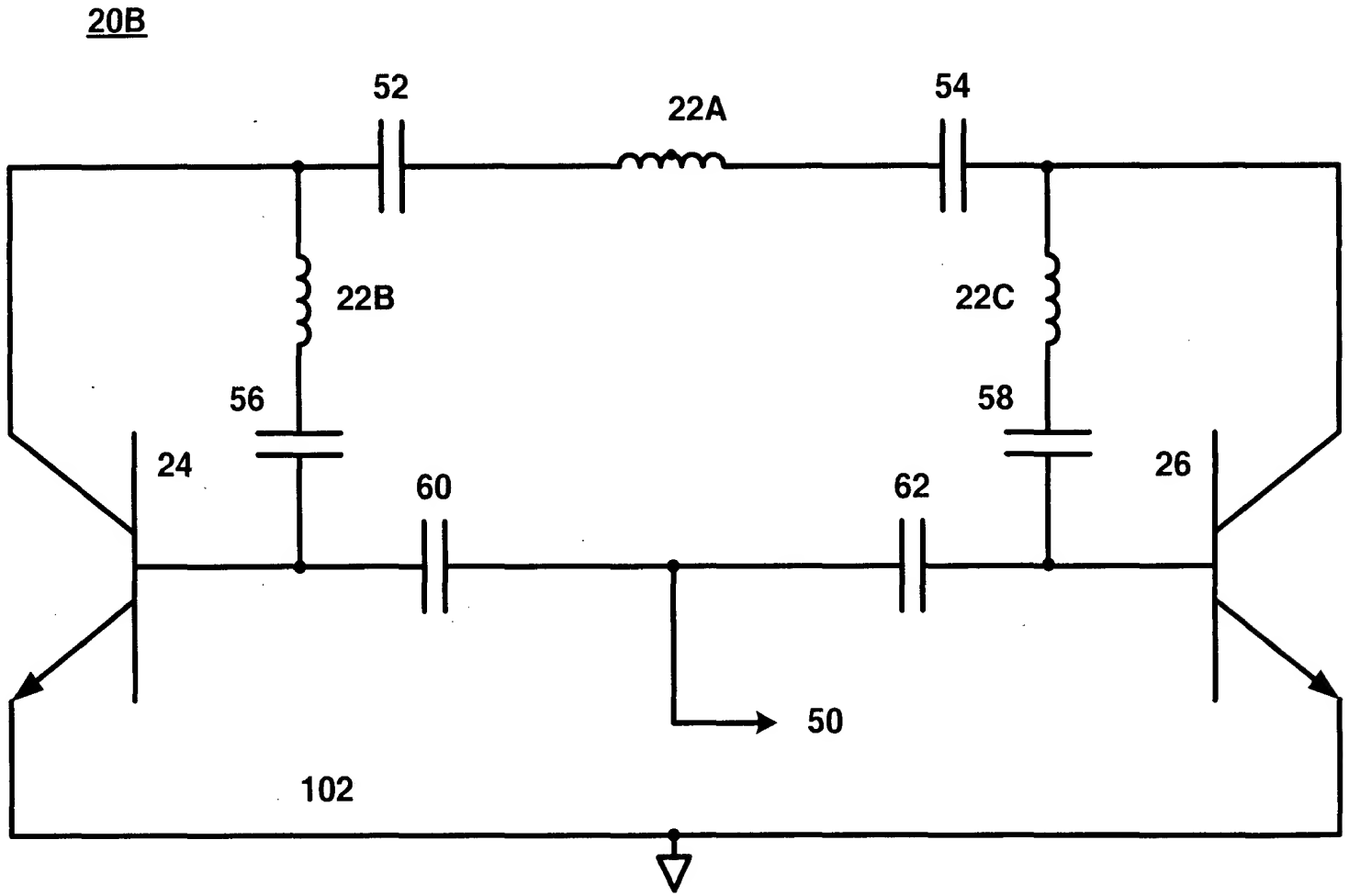

FIG. 6

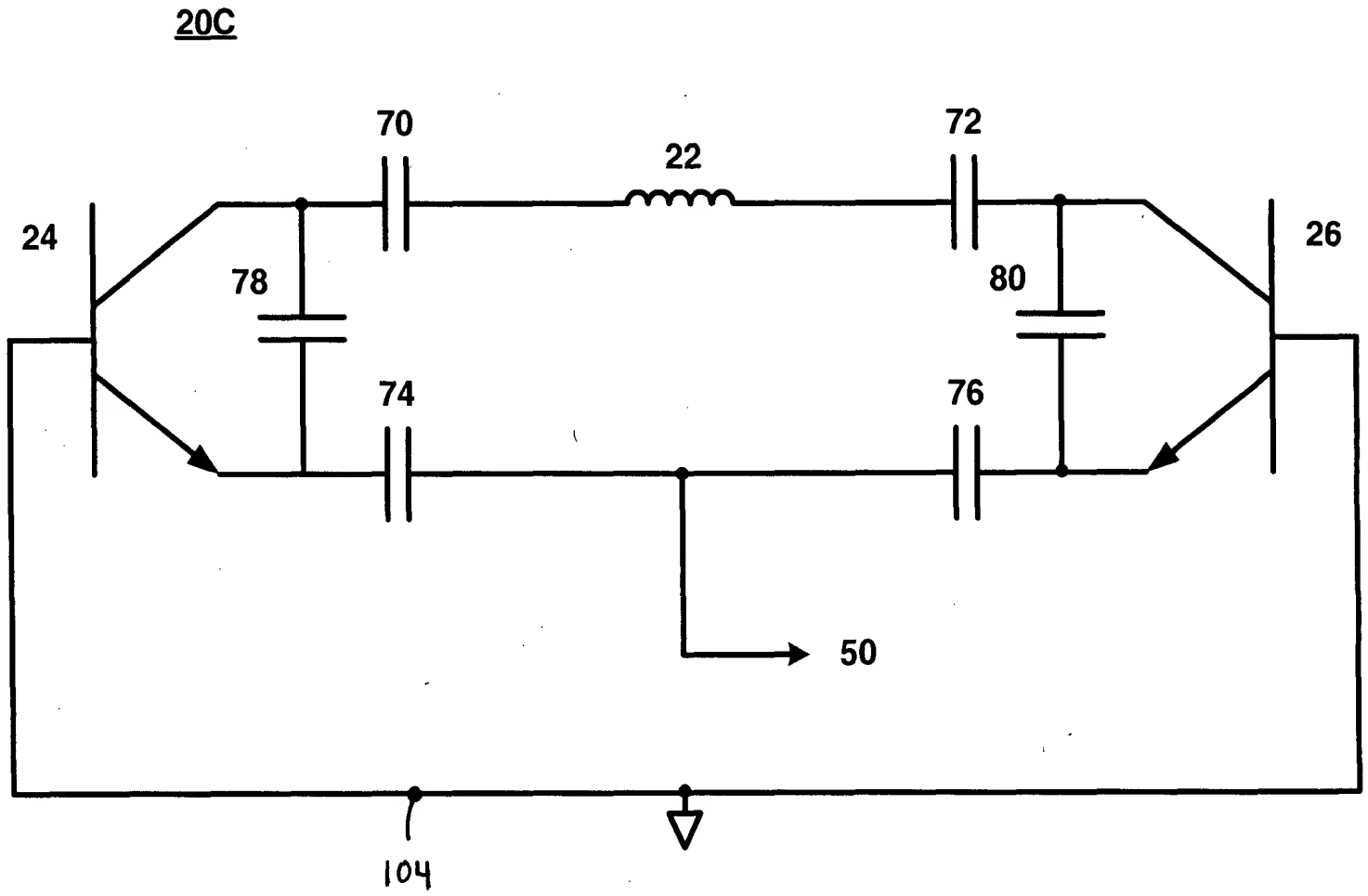

FIG. 7

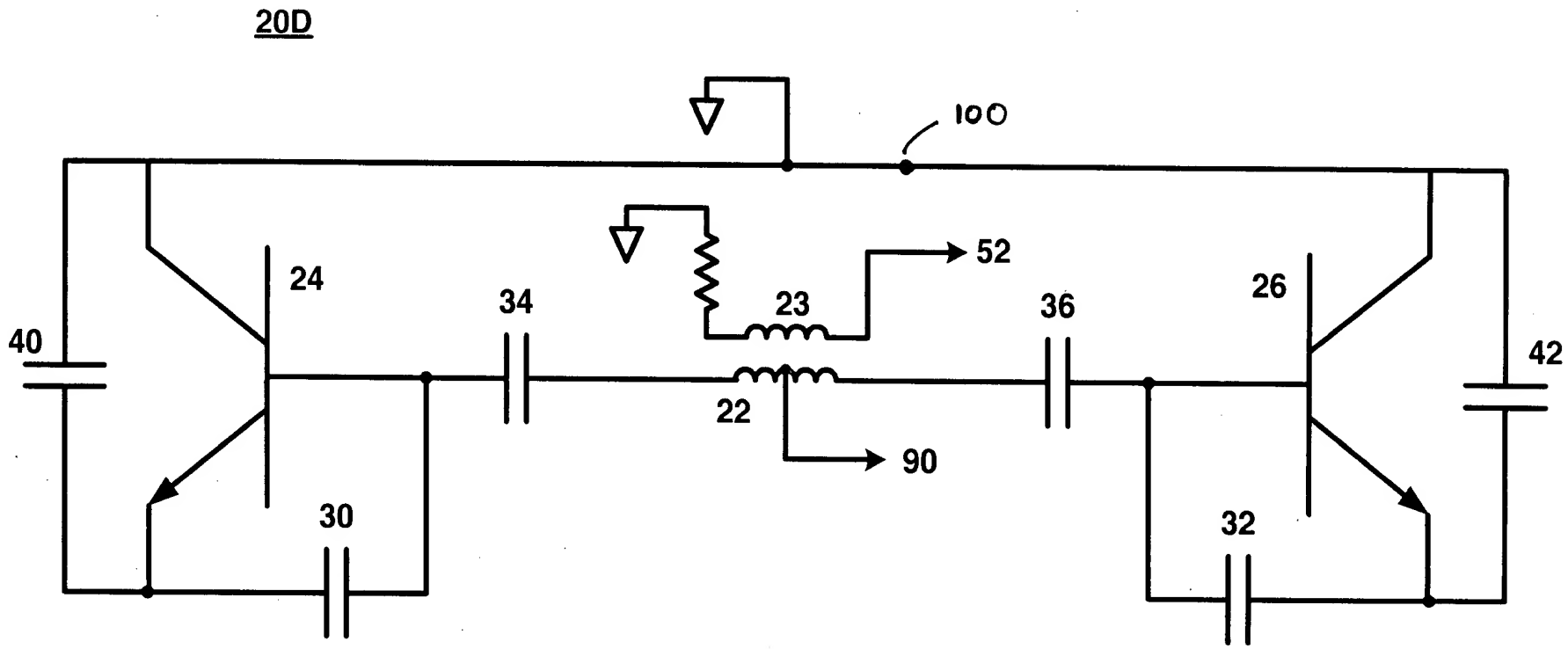

FIG. 8

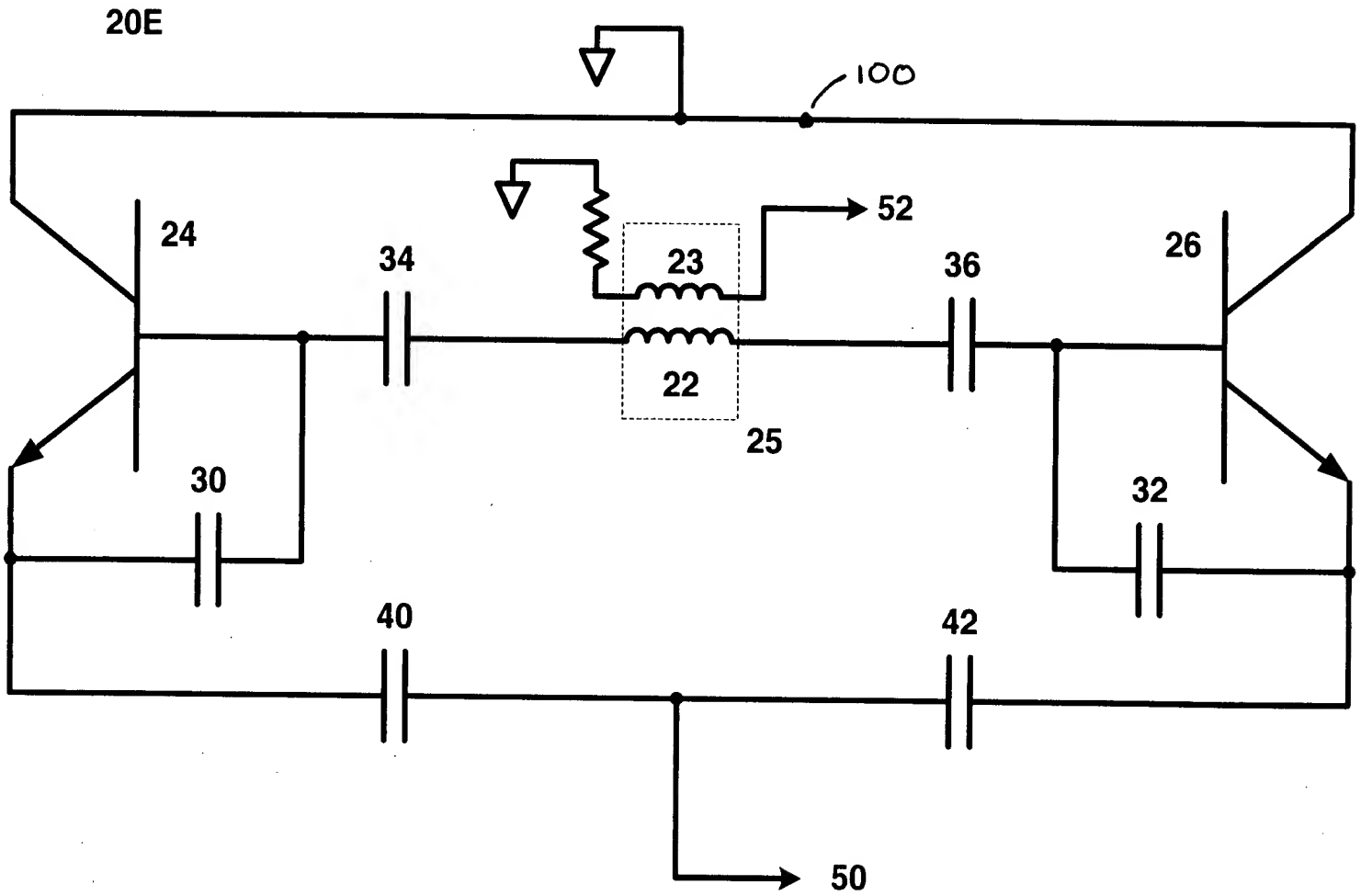

FIG. 9

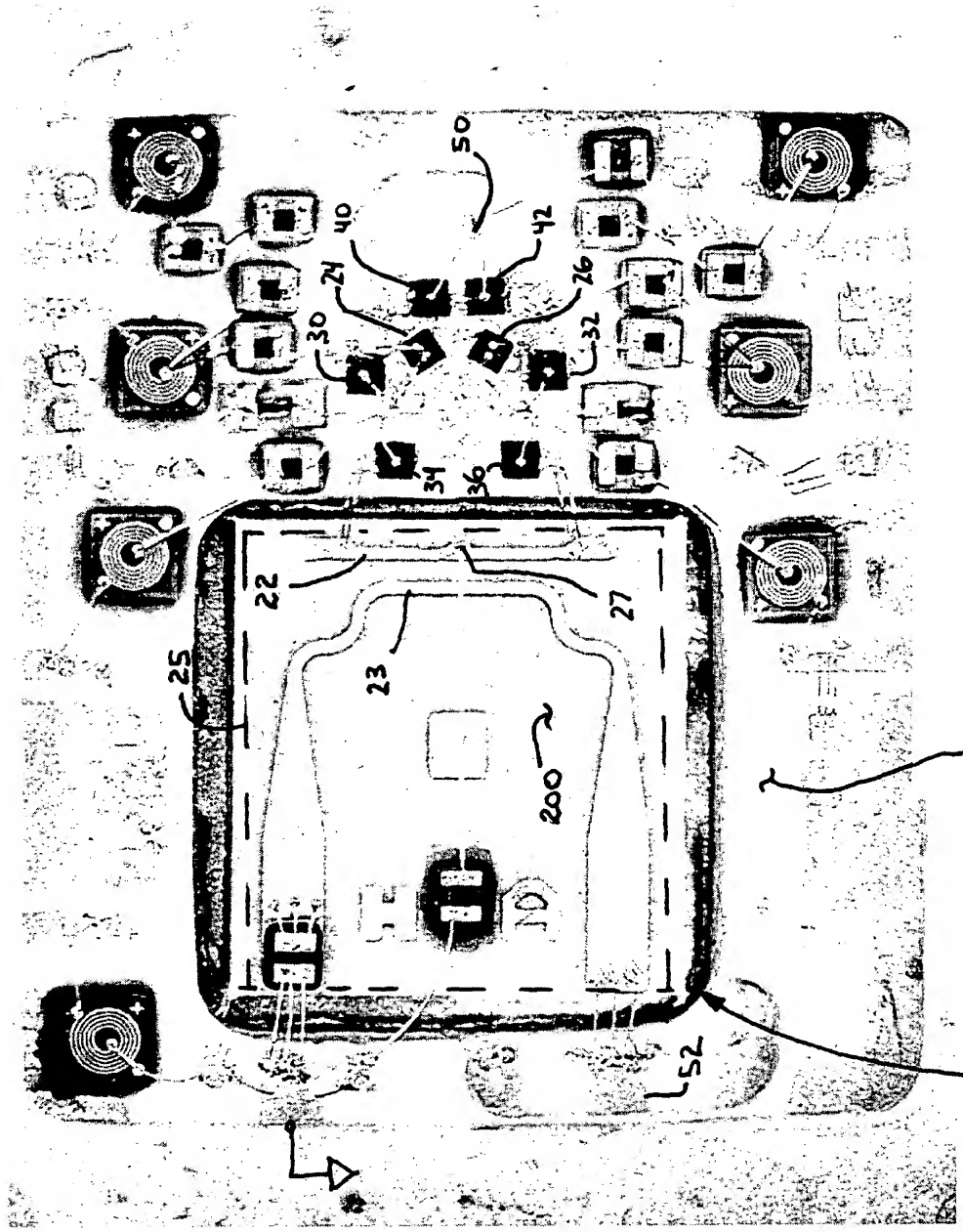

FIG. 10